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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
09/803,225	03/09/2001	Rosa Maria Covarrubias	3597-118-01 6802	
75	90 12/19/2001			
Luke A. Kilyk			EXAMINER	
KILYK & BOWERSOX. P.L.L.C. 53A Lee Street Warrenton, VA 20186			CHIN, PETER	
			ART UNIT	PAPER NUMBER
			1731	<u>—</u>
•			DATE MAILED: 12/19/2001	

Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)				
	09/803,225	COVARRUBIAS, ROSA MARIA				
Office Action Summary	Examiner	Art Unit				
	Peter Chin	1731				
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the c	correspondence address				
A SHORTENED STATUTORY PERIOD FOR REPL' THE MAILING DATE OF THIS COMMUNICATION.  Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be tin y within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from . cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on						
	is action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4)⊠ Claim(s) <u>1-23</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-23</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/o	r election requirement.					
Application Papers		•				
9) The specification is objected to by the Examiner.						
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
11)☐ The proposed drawing correction filed on is: a)☐ approved b)☐ disapproved by the Examiner.						
If approved, corrected drawings are required in reply to this Office action.						
12)☐ The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) ☐ All b) ☐ Some * c) ☐ None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
<ul> <li>3. Copies of the certified copies of the prio application from the International Bu</li> <li>* See the attached detailed Office action for a list</li> </ul>	reau (PCT Rule 17.2(a)).					
14)⊠ Acknowledgment is made of a claim for domest	ic priority under 35 U.S.C. § 119(	e) (to a provisional application).				
a) ☐ The translation of the foreign language pro	* *					
Attachment(s)	,,					
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 6 Other:						
.S. Patent and Trademark Office						

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## **DETAILED ACTION**

1. Claims1 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation of "... cationic conditions or combinations thereof.." is not understood since it is not known what "combinations" refer to. If it is cationic conditions, what is the combination?

2. Claims 1, 4-13, and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (5,221,435) taken in view of Braitberg (3,234,075) or Bugosh (2,917,426).

Smith shows a method of improving retention in paper making. Smith adds a cationic polymer coagulant, which includes cationic polyacrylamide (column 7). A cationic alumina microparticles is employed in conjunction with an anionic polymer retention aid.

Braitberg teaches the addition of boehmite, which is a cationic fibrous alumina microparticle, to flocculate pitch particles, clays, fillers, gums and starches,(column1). The boehmite attaches and retains these components of the paper making furnish to the pulp fibers (last paragraph of column 3 spanning column 4).

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Bugosh teaches that boehmite microparticles added to pulp slurry containing filler and binders synergistically improves bonding. Filler retention is like wise improved, see Example 9, column 12.

Therefore in view of the superior performance of Boehmite, a cationic fibrous microparticulate form of alumina in achieving retention and strength making paper, it would have been obvious to employ it as the cationic alumina microparticle in Smith

It is noted in regard to the apparatus claims 17-21. The apparatus per se, is merely the standard apparatus for paper making. The only difference is the additives, which do not impart any structural difference to the apparatus already disclosed by Smith. In any case if additional evidenced is required see the prior art by Applicant and those cited below.

3. Claims 2,3, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (5,221,435) taken in view of Braitberg (3,234,075) or Bugosh (2,917,426) as applied to claims 1,4-13, and 16-22 above, and further in view of Sippel (WO 97/41063.

It would have been obvious to employ the acetate salt of boehmite in view of the superior flocculating activity as taught by Sippel

4. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (5,221,435) taken in view of Braitberg (3,234,075) or Bugosh (2,917,426) as applied to claims 1, 4-13, and 16-22 above, and further in view of Sarkar et al (5,169,497 or 5,507,914).

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It would have been further obvious to add a cellulase enzyme to the pulp furnish since it advantageously improves the freeness pf the pulp furnish as taught by Sarkar et al.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Carre et al (5,496,440)discloses a retention system that uses cationic aluminum hydroxide.

Pruszynski (5,942,087) shows typical paper making machine.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Chin whose telephone number is (703) 308-2046. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (703) 308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

Peter Chin
Primary Examiner
Art Unit 1731